Land Transport Carbon Emissions in 2050

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COP22 - November 2016
Transport and (I)NDCs (2030)

Transport Emissions (MT) - 138 Countries

- BAU
- LCS
- 2DS
- INDC (using 2010 share)

- 2010
- 2020
- 2030
Transport and (I)NDCs

Number of NDCs

Transport Modes highlighted in NDC

- Passenger
- Freight

- non-Annex I
- Annex-I

No of Mitigation Interventions in INDCs

- Avoid
- Shift
- Improve

- Low Income
- Middle Income
- High Income
Global Land Transport GHG Emissions (2050)

- Estimated BAU
- 2DS
- 1.5DS
- Estimated LCS
Global Land Transport GHG Emissions (2050)

Mitigation Potential (BAU & LCS)

- OECD
- Non-OECD

Year:
- 2020: -13% (OECD), -21% (Non-OECD)
- 2030: -28% (OECD), -28% (Non-OECD)
- 2050: -65% (OECD), -59% (Non-OECD)
1. 60 Countries only
2. 450 BAU and Low Carbon Studies
3. 550+ Mitigation Measures
4. In terms of Impact, Avoid and Shift “can” give comparable mitigation impact as Improve strategies
Land Transport Mitigation Measures Impact

Mitigation (Reduction % from Transport BAU @ 2050)

Avoid
- Landuse Planning: 27%
- Logistics Improvement: 12%
- Mode Shift (Public Transport & NMT): 11%
- Fiscal Measures: 12%
- Freight Mode Shift: 9%

Shift
- Eco-Driving: 2%
- Speed Limits: 5%
- Inspection and Maintenance: 3%
- Public Transport Technology Improvement: 2%
- Passenger Fuel Efficiency Improvement: 16%
- Freight Fuel Efficiency Improvement: 12%

Improve
- Biofuels: 17%
- Electric Vehicles: 24%
Land Transport Mitigation - Tools

- NDCs
- Mitigation Studies
- Tools

Number of Transport GHG Methodologies & Tools

Avoid
Shift
Improve
Land Transport Mitigation - Tools

- Government: 33%
- Development Agency: 41%
- Private Sector: 9%
- NGO/University: 17%

- Project: 18%
- Policy: 19%
- Infrastructure: 16%
- Program: 12%
- Organization: 14%
- Fleet: 16%
- Supply Chain: 6%

Legend:
- Government
- Development Agency
- Private Sector
- NGO/University
1. High intensity of growth in BAU
2. High emission gap in NDCs by 2030
3. Mitigation potential assessed under a LCS (~ 60% by 2050) ~2DS
4. Zero net emissions soon after 2050 for land-transport sector (1.5DS)
5. Avoid/ Shift/ Freight in transport are “critical” but currently very uneven mix of policies in NDCs and mitigation studies
6. Data, modelling & capacity building to scale-up from 60+ to 190+
7. Very short window of opportunity – Quickwins and Roadmap